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(71) Applicant (for all designated States except US): **MO-
TOROLA INC** [US/US]; 1303 E.Algonquin Road,
Schaumburg, IL 60196 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **REYNES,
Jean-Michel** [FR/FR]; Motorola Centre De Recherche,
Parc Technologique De St Aubin, Route de l'arme Au
Merisier, Immeuble Columbia, F-91190 Gif-Sur-Yvette
(FR). **DERAM, Ivana** [FR/FR]; Motorola Centre De
Recherche, Parc Technologique De St Aubin, Route
de l'arme Au Merisier, Immeuble Columbia, F-91190
Gif-Sur-Yvette (FR). **DELOUME, Pascal** [FR/FR];
Motorola Centre De Recherche, Parc Technologique De St

Aubin, Route de l'arme Au Merisier, Immeuble Columbia,
F-91190 Gif-Sur-Yvette (FR).

(74) Agent: **MCCORMACK, Derek**; Motorola European In-
tellectual, Property Operations, Midpoint, Alencon Link,
Basingstoke, Hampshire RG21 7PL (GB).

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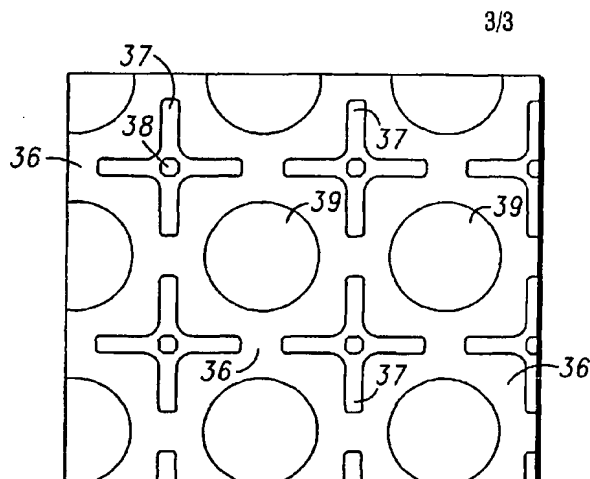
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(54) Title: POWER SEMICONDUCTOR DEVICE AND METHOD OF MANUFACTURING THE SAME



(57) Abstract: A low on-state resistance power semiconductor device has a shape and an arrangement that increase the channel density and the breakdown voltage. The power semiconductor device comprises a plurality of individual cells formed on a semiconductor substrate (62). Each individual cell comprises a plurality of radially extending branches (80) having source regions (37) within base regions (36). The plurality of individual cells are arranged such that at least one branch of each cell extends towards at least one branch of an adjacent cell and wherein the base region (36) of the extending branches merge together to form a single and substantially uniformly doped base region (36) surrounding drain islands (39) at the surface of the semiconductor substrate (62).

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